



SEQUENCE LISTING

<110> TSUBOUCHI, Kozo
YAMADA, Hiromi

<120> EXTRACTION AND UTILIZATION OF CELL
GROWTH-PROMOTING PEPTIDES FROM SILK PROTEIN

<130> OPS 635

<140> US 10/789 494

<141> 2004-02-27

<150> JP 2003-55048

<151> 2003-02-28

<160> 85

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<213> Bombyx mori

<400> 1

Val Ile Thr Thr Asp Ser Asp Gly Asn Glu
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<213> Bombyx mori

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Asn Ile Asn Asp Phe Asp Glu Asp
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Ala Ala Ser Ser Val Ser Ser Ala Ser Ser Arg Ser Tyr Asp Tyr Ser Arg Arg Asn Val
5 10 15 20

Arg Lys Asn

<210> 4

<211> 29

<212> PRT

<213> Bombyx mori

<400> 4

Gly Ser Ser Gly Phe Gly Pro Tyr Val Ala His Gly Gly Tyr Ser Gly Tyr Glu Tyr Ala
5 10 15 20

Trp Ser Ser Glu Ser Asp Phe Gly Thr
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<210> 5

<211> 12

<212> PRT

<213> Antheraea yamamai

<400> 5

Tyr Gly Trp Gly Asp Gly Gly Tyr Gly Ser Asp Ser
5 10

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<213> *Antheraea yamamai*

<400> 6

Asp Glu Tyr Val Asp Asn
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<210> 7

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<213> *Antheraea yamamai*

<400> 7

Val Glu Thr Ile Val Leu Glu Glu Asp Pro Tyr Gly His Glu Asp Ile Tyr Glu Glu Asp
5 10 15 20

<210> 8

<211> 13

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<400> 8

Asp Asp Gly Phe Val Leu Asp Gly Gly Tyr Asp Ser Glu
5 10

<210> 9

<211> 151

<212> PRT

<213> *Bombyx mori*

<400> 9

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Arg | Val | Lys | Thr | Phe | Val | Ile | Leu | Cys | Cys | Ala | Leu | Gln | Tyr | Val | Ala | Tyr | Thr | Asn |
| | | | | 5 | | | | | 10 | | | | | 15 | | | | | 20 |
| Ala | Asn | Ile | Asn | Asp | Phe | Asp | Glu | Asp | Tyr | Phe | Gly | Ser | Asp | Val | Thr | Val | Gln | Ser | Ser |
| | | | | 25 | | | | | 30 | | | | | 35 | | | | | 40 |
| Asn | Thr | Thr | Asp | Glu | Ile | Ile | Arg | Asp | Ala | Ser | Gly | Ala | Val | Ile | Glu | Glu | Gln | Ile | Thr |
| | | | | 45 | | | | | 50 | | | | | 55 | | | | | 60 |
| Thr | Lys | Lys | Met | Gln | Arg | Lys | Asn | Lys | Asn | His | Gly | Ile | Leu | Gly | Lys | Asn | Glu | Lys | Met |
| | | | | 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ile | Lys | Thr | Phe | Val | Ile | Thr | Thr | Asp | Ser | Asp | Gly | Asn | Glu | Ser | Ile | Val | Glu | Glu | Asp |
| | | | | 85 | | | | | 90 | | | | | 95 | | | | | 100 |
| Val | Leu | Met | Lys | Thr | Leu | Ser | Asp | Gly | Thr | Val | Ala | Gln | Ser | Tyr | Val | Ala | Ala | Asp | Ala |
| | | | | 105 | | | | | 110 | | | | | 115 | | | | | 120 |
| Gly | Ala | Tyr | Ser | Gln | Ser | Gly | Pro | Tyr | Val | Ser | Asn | Ser | Gly | Tyr | Ser | Thr | His | Gln | Gly |
| | | | | 125 | | | | | 130 | | | | | 135 | | | | | 140 |
| Tyr | Thr | Ser | Asp | Phe | Ser | Thr | Ser | Ala | Ala | Val | | | | | | | | | |
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<210> 10

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<212> PRT

<213> *Bombyx mori*

<400> 10

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| Gly | Ser | Ser | Gly | Phe | Gly | Pro | Tyr | Val | Ala | Asn | Gly | Gly | Tyr | Ser | Arg | Ser | Asp | Gly | Tyr |
| | | | | 5 | | | | | 10 | | | | | 15 | | | | | 20 |
| Glu | Tyr | Ala | Trp | Ser | Ser | Asp | Phe | Gly | Thr | | | | | | | | | | |
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<210> 11
 <211> 29
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| | | | | | | | | | | | | | | | | | | | |
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| Gly | Ser | Ser | Gly | Phe | Gly | Pro | Tyr | Val | Ala | His | Gly | Gly | Tyr | Ser | Gly | Tyr | Glu | Tyr | Ala |
| | | | | 5 | | | | | 10 | | | | | 15 | | | | | 20 |
| Trp | Ser | Ser | Glu | Ser | Asp | Phe | Gly | Thr | | | | | | | | | | | |
| | | | | 25 | | | | | | | | | | | | | | | |

<210> 12
 <211> 29
 <212> PRT
 <213> Bombyx mori

| | | | | | | | | | | | | | | | | | | | |
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| Gly | Ser | Ser | Gly | Phe | Gly | Pro | Tyr | Val | Ala | Asn | Gly | Gly | Tyr | Ser | Gly | Tyr | Glu | Tyr | Ala |
| | | | | 5 | | | | | 10 | | | | | 15 | | | | | 20 |
| Trp | Ser | Ser | Glu | Ser | Asp | Phe | Gly | Thr | | | | | | | | | | | |
| | | | | 25 | | | | | | | | | | | | | | | |

<210> 13
 <211> 29
 <212> PRT
 <213> Bombyx mori

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ser | Ser | Gly | Phe | Gly | Pro | Tyr | Val | Ala | His | Gly | Gly | Tyr | Ser | Gly | Tyr | Glu | Tyr | Ala |
| | | | | 5 | | | | | 10 | | | | | 15 | | | | | 20 |
| Trp | Ser | Ser | Glu | Ser | Asp | Phe | Gly | Thr | | | | | | | | | | | |
| | | | | 25 | | | | | | | | | | | | | | | |

<210> 14
 <211> 29
 <212> PRT
 <213> Bombyx mori

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ser | Ser | Gly | Phe | Gly | Pro | Tyr | Val | Ala | His | Gly | Gly | Tyr | Ser | Gly | Tyr | Glu | Tyr | Ala |
| | | | | 5 | | | | | 10 | | | | | 15 | | | | | 120 |
| Trp | Ser | Ser | Glu | Ser | Asp | Phe | Gly | Thr | | | | | | | | | | | |
| | | | | 25 | | | | | | | | | | | | | | | |

<210> 15
 <211> 29
 <212> PRT
 <213> Bombyx mori

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ser | Ser | Gly | Phe | Gly | Pro | Tyr | Val | Ala | Asn | Gly | Gly | Tyr | Ser | Gly | Tyr | Glu | Tyr | Ala |
| | | | | 5 | | | | | 10 | | | | | 15 | | | | | 20 |
| Trp | Ser | Ser | Glu | Ser | Asp | Phe | Gly | Thr | | | | | | | | | | | |
| | | | | 25 | | | | | | | | | | | | | | | |

<210> 16

<211> 29
<212> PRT
<213> Bombyx mori

<400> 16
Gly Ser Ser Gly Phe Gly Pro Tyr Val Ala Asn Gly Gly Tyr Ser Gly Tyr Glu Tyr Ala
5 10 15 20
Trp Ser Ser Glu Ser Asp Phe Gly Thr
25

<210> 17
<211> 29
<212> PRT
<213> Bombyx mori

<400> 17
Gly Ser Ser Gly Phe Gly Pro Tyr Val Ala Asn Gly Gly Tyr Ser Gly Tyr Glu Tyr Ala
5 10 15 20
Trp Ser Ser Glu Ser Asp Phe Gly Thr
25

<210> 18
<211> 28
<212> PRT
<213> Bombyx mori

<400> 18
Gly Ser Ser Gly Phe Gly Pro Tyr Val Asn Gly Gly Tyr Ser Gly Tyr Glu Tyr Ala Trp
5 10 15 20
Ser Ser Glu Ser Asp Phe Gly Thr
25

<210> 19
<211> 29
<212> PRT
<213> Bombyx mori

<400> 19
Gly Ser Ser Gly Phe Gly Pro Tyr Val Ala Asn Gly Gly Tyr Ser Gly Tyr Glu Tyr Ala
5 10 15 20
Trp Ser Ser Glu Ser Asp Phe Gly Thr
25

<210> 20
<211> 32
<212> PRT
<213> Bombyx mori

<400> 20
Gly Ser Ser Gly Phe Gly Pro Tyr Val Ala Asn Gly Gly Tyr Ser Arg Arg Glu Gly Tyr
5 10 15 20
Glu Tyr Ala Trp Ser Ser Lys Ser Asp Phe Glu Thr
25 30

<210> 21
<211> 43
<212> PRT
<213> Bombyx mori

<400> 21
Ala Ala Ser Ser Val Ser Ser Ala Ser Ser Arg Ser Tyr Asp Tyr Ser Arg Arg Asn Val

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 5 | | | | | | | | 10 | | | | | 15 | | | | 20 |
| Arg | Lys | Asn | Cys | Gly | Ile | Pro | Arg | Arg | Gln | Leu | Val | Val | Lys | Phe | Arg | Ala | Leu | Pro |
| | | | | 25 | | | | | 30 | | | | | 35 | | | | 40 |
| Val | Asn | Cys | | | | | | | | | | | | | | | | |

<210> 22
 <211> 262
 <212> PRT
 <213> Bombyx mori

| | | | | | | | | | | | | | | | | | | | |
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| <400> 22 | | | | | | | | | | | | | | | | | | | |
| Met | Lys | Pro | Ile | Phe | Leu | Val | Leu | Leu | Val | Ala | Thr | Ser | Ala | Tyr | Ala | Ala | Pro | Ser | Val |
| | | | | 5 | | | | | 10 | | | | | 15 | | | | | 20 |
| Thr | Ile | Asn | Gln | Tyr | Ser | Asp | Asn | Glu | Ile | Pro | Arg | Asp | Ile | Asp | Asp | Gly | Lys | Ala | Ser |
| | | | | 25 | | | | | 30 | | | | | 35 | | | | | 40 |
| Ser | Val | Ile | Ser | Arg | Ala | Trp | Asp | Tyr | Val | Asp | Asp | Thr | Asp | Lys | Ser | Ile | Ala | Ile | Leu |
| | | | | 45 | | | | | 50 | | | | | 55 | | | | | 60 |
| Asn | Val | Gln | Glu | Ile | Leu | Lys | Asp | Met | Ala | Ser | Gln | Gly | Asp | Tyr | Ala | Ser | Gln | Ala | Ser |
| | | | | 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ser | Val | Ala | Gln | Thr | Ala | Gly | Ile | Ile | Ala | His | Leu | Ser | Ala | Gly | Ile | Pro | Gly | Asp | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | | | | | 100 |
| Cys | Ala | Ala | Ala | Asn | Val | Ile | Asn | Ser | Tyr | Thr | Asp | Gly | Val | Arg | Ser | Gly | Asn | Phe | Ala |
| | | | | 105 | | | | | 110 | | | | | 115 | | | | | 120 |
| Gly | Phe | Arg | Gln | Ser | Leu | Gly | Pro | Phe | Phe | Gly | His | Val | Gly | Gln | Asn | Leu | Asn | Leu | Ile |
| | | | | 125 | | | | | 130 | | | | | 135 | | | | | 140 |
| Asn | Gln | Leu | Val | Ile | Asn | Pro | Gly | Gln | Leu | Arg | Tyr | Ser | Val | Gly | Pro | Ala | Leu | Gly | Cys |
| | | | | 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Gly | Gly | Gly | Arg | Ile | Tyr | Asp | Phe | Glu | Ala | Ala | Trp | Asp | Ala | Ile | Leu | Ala | Ser | Ser |
| | | | | 165 | | | | | 170 | | | | | 175 | | | | | 180 |
| Asp | Ser | Ser | Phe | Leu | Asn | Glu | Glu | Tyr | Cys | Ile | Val | Lys | Arg | Leu | Tyr | Asn | Ser | Arg | Asn |
| | | | | 185 | | | | | 190 | | | | | 195 | | | | | 200 |
| Ser | Gln | Ser | Asn | Asn | Ile | Ala | Ala | Tyr | Ile | Thr | Ala | His | Leu | Leu | Pro | Pro | Val | Ala | Gln |
| | | | | 205 | | | | | 210 | | | | | 215 | | | | | 220 |
| Val | Phe | His | Gln | Ser | Ala | Gly | Ser | Ile | Thr | Asp | Leu | Leu | Arg | Gly | Val | Gly | Asn | Gly | Asn |
| | | | | 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Asp | Ala | Thr | Gly | Leu | Val | Ala | Asn | Ala | Gln | Arg | Tyr | Ile | Ala | Gln | Ala | Ala | Ser | Gln | Val |
| | | | | 245 | | | | | 250 | | | | | 255 | | | | | 260 |
| His | Val | | | | | | | | | | | | | | | | | | |

<210> 23
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 <212> PRT
 <213> Antheraea yamamai

| | | | | | | | | | | | | | | | | | | | |
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| <400> 23 | | | | | | | | | | | | | | | | | | | |
| Met | Arg | Val | Thr | Ala | Phe | Val | Ile | Leu | Cys | Cys | Ala | Leu | Gln | Tyr | Ala | Thr | Ala | Asn | Asn |
| | | | | 5 | | | | | 10 | | | | | 15 | | | | | 20 |
| Leu | His | His | His | Asp | Glu | Tyr | Val | Asp | Asn | His | Gly | Gln | Leu | Val | Glu | Arg | Phe | Thr | Thr |
| | | | | 25 | | | | | 30 | | | | | 35 | | | | | 40 |
| Arg | Lys | His | Tyr | Glu | Arg | Asn | Ala | Ala | Thr | Arg | Pro | His | Leu | Ser | Gly | Asn | Glu | Arg | Leu |
| | | | | 45 | | | | | 50 | | | | | 55 | | | | | 60 |
| Val | Glu | Thr | Ile | Val | Leu | Glu | Glu | Asp | Pro | Tyr | Gly | His | Glu | Asp | Ile | Tyr | Glu | Glu | Asp |
| | | | | 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Val | Val | Ile | Asn | Arg | Val | Pro | Gly | Ala | Ser | Ser | Ser | Ala | Ala | Ala | Ala | Ser | Ser | Ala | Ser |
| | | | | 85 | | | | | 90 | | | | | 95 | | | | | 100 |
| Ala | Gly | Ser | Gly | Gln | Thr | Ile | Ile | Val | Glu | Arg | Gln | Ala | Ser | His | Gly | Ala | Gly | Gly | Ala |
| | | | | 105 | | | | | 110 | | | | | 115 | | | | | 120 |

<210> 24
 <211> 16
 <212> PRT

<213> Antheraea yamamai

<400> 24

Ala Gly Ala Ala Ala Gly Ala Ala Ala Gly Ser Ser Ala Arg Gly Gly
5 10 15

<210> 25

<211> 45

<212> PRT

<213> Antheraea yamamai

<400> 25

Ser Gly Phe Tyr Glu Thr His Asp Ser Tyr Ser Ser Tyr Gly Ser Gly Ser Ser Ser Ala
5 10 15 20
Ala Ala Ala Ser Ser Gly Ala Gly Gly Ala Gly Gly Gly Tyr Gly Trp Gly Asp Gly Gly
25 30 35 40
Tyr Gly Ser Asp Ser
45

<210> 26

<211> 17

<212> PRT

<213> Anthraea yamamai

<400> 26

Gly Ser Gly Ala Gly Gly Arg Gly Asp Gly Gly Tyr Gly Ser Gly Ser Ser
5 10 15

<210> 27

<211> 27

<212> PRT

<213> Antheraea yamamai

<400> 27

Arg Arg Ala Gly His Asp His Ala Ala Gly Ser Ser Gly Gly Gly Tyr Ser Trp Asp Tyr
5 10 15 20
Ser Ser Tyr Gly Ser Glu Ser
25

<210> 28

<211> 23

<212> PRT

<213> Antheraea yamamai

<400> 28

Gly Ser Gly Ala Gly Gly Val Gly Gly Gly Tyr Gly Gly Gly Asp Gly Gly Tyr Gly Ser
5 10 15 20
Gly Ser Ser

<210> 29

<211> 11

<212> PRT

<213> Antheraea yamamai

<400> 29

Arg Arg Ala Gly His Asp Arg Ala Ala Gly Ser
5 10

<210> 30

<211> 21

<212> PRT

<213> Antheraea yamamai

<400> 30

Ser Gly Ala Gly Gly Ser Gly Gly Gly Tyr Gly Trp Gly Asp Gly Gly Tyr Gly Ser Asp
5 10 15 20
Ser

<210> 31

<211> 8

<212> PRT

<213> Antheraea yamamai

<400> 31

Gly Ser Gly Ala Gly Arg Ala Gly
5

<210> 32

<211> 14

<212> PRT

<213> Antheraea yamamai

<400> 32

Gly Asp Tyr Gly Trp Gly Asp Gly Gly Tyr Gly Ser Asp Ser
5 10

<210> 33

<211> 11

<212> PRT

<213> Antheraea yamamai

<400> 33

Arg Gln Ala Gly His Glu Arg Ala Ala Gly Ser
5 10

<210> 34

<211> 21

<212> PRT

<213> Antheraea yamamai

<400> 34

Ser Gly Ala Gly Gly Ser Gly Arg Gly Tyr Gly Trp Gly Asp Gly Gly Tyr Gly Ser Asp
5 10 15 20
Ser

<210> 35

<211> 21

<212> PRT

<213> Antheraea yamamai

<400> 35

Gly Ser Gly Ala Gly Gly Ala Gly Gly Asp Tyr Gly Trp Gly Asp Gly Gly Tyr Gly Ser
5 10 15 20
Asp

<210> 36

<211> 22

<212> PRT

<213> Antheraea yamamai

<400> 36

Gly Ser Gly Ala Gly Gly Ala Gly Gly Asp Tyr Gly Trp Gly Asp Gly Gly Tyr Gly Ser
5 10 15 20
Asp Ser

<210> 37
<211> 21
<212> PRT
<213> Antheraea yamamai

<400> 37
Ser Gly Ala Gly Gly Ala Gly Gly Gly Tyr Gly Trp Gly Asp Gly Gly Tyr Gly Ser Asp
5 10 15 20
Ser

<210> 38
<211> 16
<212> PRT
<213> Antheraea yamamai

<400> 38
Ser Gly Ala Gly Gly Ala Gly Gly Tyr Gly Gly Tyr Gly Ser Asp Ser
5 10 15

<210> 39
<211> 21
<212> PRT
<213> Antheraea yamamai

<400> 39
Ser Gly Ala Gly Gly Ser Gly Gly Gly Tyr Gly Trp Gly Asp Gly Gly Tyr Gly Ser Gly
5 10 15 20
Ser

<210> 40
<211> 22
<212> PRT
<213> Antheraea yamamai

<400> 40
Gly Ser Gly Ala Gly Gly Val Gly Gly Gly Tyr Gly Trp Gly Asp Gly Gly Tyr Gly Ser
5 10 15 20
Asp Ser

<210> 41
<211> 16
<212> PRT
<213> Antheraea yamamai

<400> 41
Ser Gly Ala Gly Gly Arg Gly Asp Gly Gly Tyr Gly Ser Gly Ser Ser
5 10 15

<210> 42
<211> 22
<212> PRT
<213> Antheraea yamamai

<400> 42
Gly Ser Gly Ala Gly Gly Ala Gly Gly Gly Tyr Gly Trp Gly Asp Gly Gly Tyr Gly Ser
5 10 15 20
Asp Ser

<210> 43
<211> 11
<212> PRT
<213> Antheraea yamamai

<400> 43
Arg Arg Ala Gly His Asp Arg Ala Ala Gly Cys
5 10

<210> 44
<211> 21
<212> PRT
<213> Antheraea yamamai

<400> 44
Ser Gly Ala Gly Gly Thr Gly Gly Gly Tyr Gly Trp Gly Asp Gly Gly Tyr Gly Ser Asp
5 10 15 20
Ser

<210> 45
<211> 21
<212> PRT
<213> Antheraea yamamai

<400> 45
Ser Gly Ala Gly Gly Ser Gly Gly Gly Tyr Gly Trp Gly Asp Gly Gly Tyr Gly Ser Asn
5 10 15 20
Ser

<210> 46
<211> 21
<212> PRT
<213> Antheraea yamamai

<400> 46
Ser Gly Ala Gly Arg Ser Gly Gly Gly Tyr Gly Trp Gly Asp Gly Gly Tyr Ser Ser Asp
5 10 15 20
Ser

<210> 47
<211> 16
<212> PRT
<213> Antheraea yamamai

<400> 47
Ser Gly Ala Gly Gly Ser Gly Gly Tyr Gly Gly Tyr Gly Ser Asp Ser
5 10 15

<210> 48
<211> 25
<212> PRT
<213> Antheraea yamamai

<400> 48
Gly Ser Gly Ala Gly Gly Val Gly Gly Gly Tyr Gly Trp Gly Asp Gly Gly Tyr Gly Gly
5 10 15 20
Tyr Gly Ser Asp Ser
25

<210> 49
<211> 23

<212> PRT

<213> Antheraea yamamai

<400> 49

Gly Ser Gly Ala Gly Gly Val Gly Gly Gly Tyr Gly Arg Gly Asp Ser Gly Tyr Gly Ser
5 10 15 20
Gly Ser Ser

<210> 50

<211> 8

<212> PRT

<213> Antheraea yamamai

<400> 50

Gly His Gly Arg Ser Ser Gly Ser
5

<210> 51

<211> 21

<212> PRT

<213> Antheraea yamamai

<400> 51

Ser Gly Ala Gly Gly Ser Gly Gly Gly Tyr Gly Trp Asp Tyr Gly Ser Tyr Gly Ser Asp
5 10 15 20
Ser

<210> 52

<211> 22

<212> PRT

<213> Antheraea yamamai

<400> 52

Ser Ser Gly Ala Gly Gly Ser Gly Gly Gly Tyr Gly Trp Asp Tyr Gly Gly Tyr Gly Ser
5 10 15 20
Asp Ser

<210> 53

<211> 22

<212> PRT

<213> Antheraea yamamai

<400> 53

Gly Ser Gly Ala Gly Gly Ser Gly Gly Gly Tyr Gly Trp Gly Asp Gly Gly Tyr Gly Ser
5 10 15 20
Asp Ser

<210> 54

<211> 14

<212> PRT

<213> Antheraea yamamai

<400> 54

Ser Arg Arg Ala Gly His Asp Arg Ala Tyr Gly Ala Gly Ser
5 10

<210> 55

<211> 28

<212> PRT

<213> Antheraea yamamai

<400> 55

Gly Ala Gly Ala Ser Arg Pro Val Gly Ile Tyr Gly Thr Asp Asp Gly Phe Val Leu Asp
5 10 15 20
Gly Gly Tyr Asp Ser Glu Gly Ser
25

<210> 56

<211> 34

<212> PRT

<213> *Antheraea yamamai*

<400> 56

Ser Ser Ser Gly Arg Ser Thr Glu Gly His Pro Leu Leu Ser Ile Cys Cys Arg Pro Cys
5 10 15 20
Ser His Arg His Ser Tyr Glu Ala Ser Arg Ile Ser Val His
25 30

<210> 57

<211> 22

<212> PRT

<213> *Bombyx mori*

<400> 57

Gly Ala Gly Ala Gly Ser Gly Ala Gly Ala Gly Ser Gly Ala Gly Ala Gly Tyr Gly Ala
5 10 15 20
Gly Tyr

<210> 58

<211> 22

<212> PRT

<213> *Bombyx mori*

<400> 58

Gly Ala Gly Ala Gly Ser Gly Ala Ala Ser Gly Ala Gly Ala Gly Ala Gly Ala Gly Ala
5 10 15 20
Gly Thr

<210> 59

<211> 23

<212> PRT

<213> *Bombyx mori*

<400> 59

Ala Ala Ser Ser Val Ser Ser Ala Ser Ser Arg Ser Tyr Asp Tyr Ser Arg Arg Asn Val
5 10 15 20
Arg Lys Asn

<210> 60

<211> 29

<212> PRT

<213> *Bombyx mori*

<400> 60

Gly Ser Ser Gly Phe Gly Pro Tyr Val Ala His Gly Gly Tyr Ser Gly Tyr Glu Tyr Ala
5 10 15 20
Trp Ser Ser Glu Ser Asp Phe Gly Thr
25

<210> 61

<211> 10

<212> PRT

<213> Antheraea yamamai

<400> 61

Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
5 10

<210> 62

<211> 12

<212> PRT

<213> Antheraea yamamai

<400> 62

Tyr Gly Trp Gly Asp Gly Gly Tyr Gly Ser Asp Ser
5 10

<210> 63

<211> 16

<212> PRT

<213> Antheraea yamamai

<400> 63

Ser Gly Ala Gly Gly Ser Gly Gly Tyr Gly Gly Tyr Gly Ser Asp Ser
5 10 15

<210> 64

<211> 17

<212> PRT

<213> Antheraea yamamai

<400> 64

Gly Ser Gly Ala Gly Gly Arg Gly Asp Gly Gly Tyr Gly Ser Gly Ser Ser
5 10 15

<210> 65

<211> 11

<212> PRT

<213> Antheraea yamamai

<400> 65

Arg Arg Ala Gly His Asp Arg Ala Ala Gly Ser
5 10

<210> 66

<211> 6

<212> PRT

<213> Antheraea yamamai

<400> 66

Asp Glu Tyr Val Asp Asn
5

<210> 67

<211> 20

<212> PRT

<213> Antheraea yamamai

<400> 67

Val Glu Thr Ile Val Leu Glu Glu Asp Pro Tyr Gly His Glu Asp Ile Tyr Glu Glu Asp
5 10 15 20

<210> 68

<211> 13
<212> PRT
<213> *Antheraea yamamai*

<400> 68
Asp Asp Gly Phe Val Leu Asp Gly Gly Tyr Asp Ser Glu
5 10

<210> 69
<211> 6
<212> PRT
<213> *Bombyx mori*

<400> 69
Gly Ala Gly Ala Gly Ser
5

<210> 70
<211> 6
<212> PRT
<213> *Bombyx mori*

<400> 70
Asp Ser Asp Gly Asp Glu
5

<210> 71
<211> 6
<212> PRT
<213> *Bombyx mori*

<400> 71
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